State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

November 16, 1992

Brad Bradley
USEPA - HSRL - 6J
77 West Jackson
Chicago, IL 60604

Re: L1190400007 -- Madison County
Taracorp/NL Industries
Superfund/Technical

Dear Brad,

Enclosed are the Agency's comments pertaining to the "Draft Work Plan For Remediation Of Sites In Granite City, Madison, And Venice, Illinois, Associated With The NL Industries/Taracorp Superfund Site." If there are any discrepancies between the IEPA comments and yours please contact me.

Sincerely,

Brian Culnan

Brian Culnan, Remedial Project Manager
Federal Site Management Unit
Remedial Project Management Section
Bureau of Land

cc: Jude Hobza, Corps of Engineers

Work Plan Comments

1. Page 1-2. Top of page. CERCLA stands for Comprehensive Environmental Response, Compensation, and Liability Act.

2. Page 1-2. Section 1.3. The first sentence reads "...and confirm that all contaminated soils have been removed to the action level of 500 ppm." However, at the end of the paragraph, it says only 5 confirmatory samples will be collected. How can the action levels of 500 ppm be confirmed from all areas slated for excavation if only 5 confirmatory samples will be collected? Samples must also be analyzed to verify the results of the XRF screening device.

3. Page 2-3. Section 2.4. Last sentence. No waste including special, nonhazardous waste should be placed in piles during removal efforts. All wastes should be loaded directly into containers, roll-off boxes, tractor trailers etc.

4. - Paragraph 3. "While loading materials for disposal or stockpiling..." See comment above.

5. Page 2-4. Section 2.5. Paragraph 5. Please identify the source of backfill material.

6. Page 2-4. Section 2.6. Paragraph 2. See comment 2 above concerning the number of confirmatory samples to be collected. 18 areas are scheduled to be excavated. The cost of analyzing samples for total lead is relatively cheap. Bear in mind that the continuation of this project to include the remediation of remaining residential property in Granite City and the industrial property, may be pivotal upon the success of this removal project.

7. - Has a determination ever been made as to whether the contaminated soil in question is a listed hazardous waste? Specifically, emission control dust or sludge from secondary lead smelting is a listed hazardous waste (EPA Identification No. K069). If the soil being removed as part of this effort, then that soil must be managed as a listed hazardous waste in accordance with 35 IAC 722, 728 and 809, as well as Section 39, Paragraph (h) of the Illinois Environmental Protection Act and any applicable federal land ban restrictions set forth in 40 CFR 268.

8. Page 2-5. Table 2.1. You should include the data obtained from the "Draft Final Report" prepared by Woodward-Clyde Consultants to support the estimations given in the columns.

9. Page 2-6. Paragraph 2. Decontamination water should not be used for dust control. Decon water should be managed as a special waste in accordance with 35 IAC 809.

10. Page 3-5. Section 3.2. Please add a separate bullet concerning the videotaping or photographing of residential property so that it can be properly restored.

Appendix A Comments

1. Page 1-2. Section 1.3. More than 5 confirmatory samples are required. Several samples need to be sent off-site from each location where soil is to be excavated and analyzed for both total lead and TCLP lead to determine exactly the concentrations of lead remaining in the soil after the removal.

2. Page 1-2. Sections 1.4 to 1.4.6. No information was provided to support statements regarding depth of excavations and the preliminary determination of material being hazardous or non-hazardous.

3. Page 1-2. Section 1.4. Please explain why 2230 Cleveland will not be excavated.

4. Page 1-3. Section 1.4.4. See comment above.

5. Page 1-4. Section 1.5. The disposal company should be consulted prior to excavation in order to fulfil their requirements.

6. - Grab samples should be obtained rather than composites.

7. Page 1-5. Section 1.7. ARARs are Applicable or Relevant and Appropriate Requirements.

8. Page 2-1. Section 2.1. The XRF analyzer is being relied too heavily upon. It is readily apparent that the variability of soils will effect the accuracy of the readings. The operating manual states: "Course grained soil conditions may not permit a truly representative sample and may adversely affect the analysis results. Such samples should be prepared before analysis." It also states that comparisons should be made between prepared and unprepared sample material. The IEPA also recommends to verify the results with laboratory

analysis. In any case, if the XRF analyzer will be used to determine the limits of excavation to the action level of 500 ppm, confirmatory sample analysis must be performed.

9. Page 2-1. Section 2.2. The IEPA recommends using a sampling grid at excavation areas, rather than random sampling as proposed. A grid should be laid out and screening conducted at the grid intersections.

10. Page 2-2. Section 2.3. All excavation points should be followed by verification sampling. See comments above. Furthermore, all samples should be grab samples rather than composites.

11. Page 3-1. Section 3.3. It is unclear as to which sample points will be composited from each excavation. For metals analysis, it may be acceptable to use composite samples. However, when sampling an excavation, the sample contents from each wall and the floor should not be composited together. If composites are to be used, you must composite soils from each individual wall and the floor separately. For example, if four sampling points are used for the north wall, they may be mixed with each other and placed in the same sample jar. Then a different composite sample must be prepared for the remaining east, south, and west walls, and a separate composite sample for the floor. For this project, a number of the areas slated for excavation contain fill material. You may encounter an area where one wall may contain higher than 500 ppm lead, but the other walls or the floor may be below the action level. If sample points within the excavation are composited as a whole, the wall containing the elevated lead levels will go undetected. Also, if the composite sample analysis exceeds the action level, you will not know which way to expand the excavation. Please spell out the exact sample methodology to be used.

12. Page 4-1. Section 4.2. If XRF screening will be used to segregate excavation material, please note that there will not be a clear correlation between ppm lead and those soils that will pass or fail TCLP analysis.

13. Page 4-1. Section 4.4. Grab samples from each excavation area should be analyzed for TCLP lead to see if the waste should be managed as a hazardous waste. If this determination is made prior to the actual excavation, wastes may be taken directly to the disposal facility, rather than stored until lab results are provided. Again this should be worked out in advance with the disposal company.

14. Page 5-2. Section 5.3. Since volatile, and semivolatile organics will be analyzed in the backfill source, no composite samples should be utilized for those parameters.

HEALTH AND SAFETY PLAN COMMENTS

SUMMARY

This site safety plan is insufficient as written. Each of the deficiencies or ambiguities listed below must be addressed and a revised plan must be resubmitted for our evaluation.

CAVEAT

Our review of the health and safety protocols established in this Site Safety Plan are based on the site conditions and chemical hazards known and/or anticipated to be present from available site data. The possibility of undocumented contamination within the site requires a conservative approach to on-site safety procedures. The following review comments are predicated on use only with the proposed activities described in the site investigation work plan. Since specifications herein are subject to review and revision based on actual conditions encountered in the field during site characterization activities, the Agency can only review the document for completeness with OSHA 29 CFR 1910.120(b)(4)(ii) A through J. Therefore, acceptance of the original or any final revision does not imply either acceptance or disapproval of the SSP.

Note that all auxiliary operations and equipment which may be on-site but not covered specifically in the site safety plan must comply with applicable parts of OSHA 29 CFR 1910 and 1926.

REVIEW DETAIL

ANY AND ALL DEFICIENCIES NOTED MUST BE CORRECTED OR CLARIFIED IN A CONCISE AND FORTHRIGHT MANNER.

Introduction

The SSP document should be a stand alone document.

A summary of representative sample results has not been provided.

Soil type and topography have not been provided.

A description of the surrounding community has not been addressed (i.e. industrial, residential, rural, etc.).

A. Safety and Health Analysis

A description of specifically applicable physical and chemical hazards are not provided for each job task or operation.

Standard operating procedures or safe work practices necessary to minimize potential hazards are not provided.

A health analysis was insufficient or was not provided. It must indicate exposure guidelines, routes of exposure, symptoms of exposure, vapor pressure, ionization potential (when applicable), odor threshold ranges, flammability ranges, etc. on the contaminants present or potentially present. MSDS's are not enough, although they are a nice addition to the SSP.

B. Employee Training

No apparent deficiencies are noted in this section.

C. Personal Protective Equipment

No apparent deficiencies noted in this section.

D. Medical Surveillance

Although you will be conducting personal air sampling on approximately 25 percent of the affected personnel, please explain why specialized medical monitoring (i.e. blood lead levels) will not be conducted at all in this site considering that some areas have extremely high levels of lead

E. Air Monitoring/Environmental Sampling

Please address air sampling turnaround time since PPE levels and upgrades will be based on these results.

Air monitoring frequency has not been addressed adequately for each piece of instrumentation to be utilized on site.

Personal monitoring has not been thoroughly addressed.

Environmental sampling needs to be addressed more specifically.

F. Site Control

Site access has not been addressed.

Site emergency communications have not been adequately addressed.

A generic definition of zones of contamination is not sufficient.

Work zones within the Exclusion zone have not been fully characterized.

G. Decontamination

Realizing the location of decontamination facilities may change with changing site conditions, please state initial location of personnel and equipment decon area(s).

Decontamination rinsate and used PPE disposal practices have been addressed but are ambiguous.

Decontamination rinsate collection procedures have not been addressed.

H. Emergency Response/Contingency Planning

The Plan does not specify whether the contractor will be performing their own emergency response or how all other emergency responders will be prepared.

Emergency phone numbers have been addressed. Please add the following to your list and provisions need to be documented for their posting near each on site or site available telephone:

a. Paramedics/Ambulance
b. IEPA-Project Manager

The Local Fire Department(s) has apparently not been notified concerning possible site contaminants and site operations.

A map showing a verified route to the nearest medical facility has not been provided. A hand drawn one is acceptable.

Written directions describing a verified route to the nearest medical facility have not been provided.

Evacuation signals and routes have not been established

Safety equipment available on site has not been adequately described and the location of the equipment has not been addressed in the plan.

I. Confined Space Entry

It seems that confined space entry will not be encountered at this site. If so a short statement should be included in this section of your SSP.

J. Spill Containment Program

A written Spill Containment Program may be necessary before site operations begin.

The estimated time of arrival for an outside spill cleanup contractor has not been provided.

Immediate telephone notification procedures have not been adequately addressed.

On site absorbant/neutralization materials have not been described.

Cleanup materials may not be appropriate for the type(s) of contaminants present.

CONCLUSION

The Site Safety Plan is insufficient as written. Please address each comment and make revisions to the Plan as necessary. If you need further clarification, contact the author or other staff of the Health and Safety Unit at 5-0830.